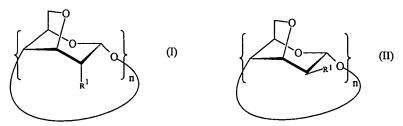
# Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

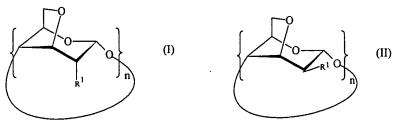
Claim 1: (**Original**) Per(3,6-anhydro)cyclodextrin derivative corresponding to one of the following formulae:



in which:

- at least one of the groups R<sup>1</sup> represents a group –OCONHR<sup>2</sup> and the other groups R<sup>1</sup>, which may be identical or different, represent a group corresponding to one of the formulae: -OCONHR<sup>2</sup>, -OH, -OR<sup>3</sup>, -SH, -SR<sup>3</sup>, -OCOR<sup>3</sup>, -NH<sub>2</sub>, -NHR<sup>3</sup>, -NR<sup>3</sup>R<sup>4</sup>, -CONH<sub>2</sub>, -CONHR<sup>3</sup>, -CONR<sup>3</sup>R<sup>4</sup>, -CN, -COOR<sup>3</sup>, -OCH<sub>2</sub>CO<sub>2</sub>H, -COOH and –R<sup>3</sup>, in which the group(s) R<sup>2</sup>, which are identical or different, represent a saturated or unsaturated aliphatic group, R<sup>3</sup> and R<sup>4</sup>, which are identical or different, represent a saturated or unsaturated, aliphatic or aromatic hydrocarbon group optionally substituted with halogen atoms which may contain one or more heteroatoms chosen from O, S and N, and/or
- at least one of the groups R<sup>1</sup> represents a group -OCONH(CR<sup>5</sup>R<sup>6</sup>)<sub>m</sub>NHCOOR<sup>7</sup>, the other groups R<sup>1</sup> corresponding to the same definition as that given above, R<sup>5</sup> and R<sup>6</sup>, which are identical or different, represent H or a saturated or unsaturated aliphatic group, and R<sup>7</sup> represents a glucosidic or maltosidic unit of the peranhydrocyclodextrin and m is an integer ranging from 1 to 20;

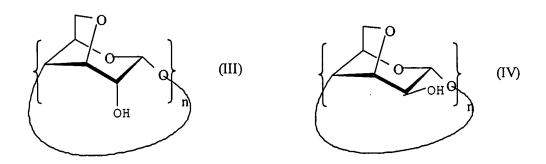
- n is equal to 6, 7 or 8.
- Claim 2: (**Original**) Per(3,6-anhydro)cyclodextrin derivative according to Claim 1, in which all the groups R<sup>1</sup> represent the group –OCONHR<sup>2</sup> with R<sup>2</sup> having the same meaning as in Claim 1, and n is equal to 6.
- Claim 3: (Original) Per(3,6-anhydro)cyclodextrin derivative according to Claim 2, in which R<sup>2</sup> represents an ethyl radical.
- Claim 4: (Original) Per(3,6-anhydro)cyclodextrin derivative according to Claim 2, in which R<sup>2</sup> represents a hexyl radical.
- Claim 5: (Original) Method for preparing a per(3,6-anhydro)cyclodextrin derivative corresponding to one of the following formulae (I) and (II):



in which:

at least one of the groups R<sup>1</sup> represents a group -OCONHR<sup>2</sup> and the other groups R<sup>1</sup>, which may be identical or different, represent a group corresponding to one of the formulae: -OCONHR<sup>2</sup>, -OH, -OR<sup>3</sup>, -SH, -SR<sup>3</sup>, -OCOR<sup>3</sup>, -NH<sub>2</sub>, -NHR<sup>3</sup>, -NR<sup>3</sup>R<sup>4</sup>, -CONH<sub>2</sub>, -CONHR<sup>3</sup>, -CONR<sup>3</sup>R<sup>4</sup>, -CN, -COOR<sup>3</sup>, -OCH<sub>2</sub>CO<sub>2</sub>H, -COOH and -R<sup>3</sup>, in which the R<sup>2</sup> group(s), which are identical or different, represent a saturated or unsaturated aliphatic group, R<sup>3</sup> and R<sup>4</sup>, which are identical or different, represent a saturated or unsaturated,

- aliphatic or aromatic hydrocarbon group optionally substituted with halogen atoms which may contain one or more heteroatoms chosen from O, S and N, and/or
- at least one of the groups R<sup>1</sup> represents a group -OCONH(CR<sup>5</sup>R<sup>6</sup>)<sub>m</sub>NHCOOR<sup>7</sup>, the other groups R<sup>1</sup> corresponding to the same definition as that given above, R<sup>5</sup> and R<sup>6</sup>, which are identical or different, represent H or a saturated or unsaturated aliphatic group, and R<sup>7</sup> represents a glucosidic or maltosidic unit of the peranhydrocyclodextrin and m is an integer ranging from 1 to 20;
- n is equal to 6, 7 or 8, said process comprising successively:
- a step consisting in reacting a per(3,6-anhydro)cyclodextrin corresponding to one of the following formulae (III) or (IV):



in which n is equal to 6, 7 or 8, with an isocyanate of formula OCN-R<sup>2</sup> and/or a diisocyanate OCN(CR<sup>5</sup>R<sup>6</sup>)<sub>m</sub>NCO in a quantity such that at least one of the OH groups is converted to a group -OCONHR<sup>2</sup> and/or to a group -OCONH(CR<sup>5</sup>R<sup>6</sup>)<sub>m</sub>NHCOOR<sup>7</sup>; and

a step consisting, when not all the OH groups have been converted to a group –OCONHR<sup>2</sup> and/or –OCONH(CR<sup>5</sup>R<sup>6</sup>)<sub>m</sub>NHCOOR<sup>7</sup>, in optionally reacting the remaining OH groups with one or more reagents in order to convert them to the desired groups R<sup>1</sup> different from –OCONHR<sup>2</sup> and/or -OCONH(CR<sup>5</sup>R<sup>6</sup>)<sub>m</sub>NHCOOR<sup>7</sup>.

Claim 6: (Original) Polymer obtained by reacting at least two per(3,6-anhydro)cyclodextrins corresponding to one of the following formulae (III) or (IV):

$$(III)$$

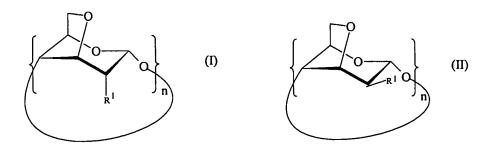
in which n is equal to 6, 7 or 8 and a diisocyanate of formula OCN- (CR<sup>5</sup>R<sup>6</sup>)<sub>m</sub>-NCO, in which R<sup>5</sup> and R<sup>6</sup>, which are identical or different, represent H or a saturated or unsaturated aliphatic group and m is an integer ranging from 1 to 20, the OH groups having not reacted during the reaction to be optionally converted into groups, which are identical or different, representing groups chosen from: -OCONHR<sup>2</sup>, -OR<sup>3</sup>, -SH, -SR<sup>3</sup>, -OCOR<sup>3</sup>, -NH<sub>2</sub>, -NHR<sup>3</sup>, -NR<sup>3</sup>R<sup>4</sup>, -CONH<sub>2</sub>, -CONHR<sup>3</sup>, -CONR<sup>3</sup>R<sup>4</sup>, -CN, -COOR<sup>3</sup>, -OCH<sub>2</sub>COOH, -COOH and -R<sup>3</sup>, in which the group(s) R<sup>2</sup> represent a saturated or unsaturated aliphatic group, R<sup>3</sup> and R<sup>4</sup>, which may be identical or different, represent a saturated or unsaturated, aliphatic or aromatic hydrocarbon group optionally substituted with halogen atoms which may contain one or more heteroatoms chosen from O, S and N.

Claim 7 (Original) Polymer according to Claim 6, for which n is equal to 6 and R<sup>5</sup> and R<sup>6</sup> both represent H and m is equal to 6.

Claim 8 (**Original**) Method for binding and separating ions, comprising the steps consisting in:

bringing a medium containing the said ions into contact with:

a per(3,6-anhydro)cyclodextrin derivative corresponding to one of the following formulae
 (I) or (II):



## in which:

- at least one of the groups R<sup>1</sup> represents a group -OCONHR<sup>2</sup> and the other groups R<sup>1</sup>, which may be identical or different, represent a group corresponding to one of the formulae:

  -OCONHR<sup>2</sup>, -OH, -OR<sup>3</sup>, -SH, -SR<sup>3</sup>, -OCOR<sup>3</sup>, -NH<sub>2</sub>, -NHR<sup>3</sup>, -NR<sup>3</sup>R<sup>4</sup>, -CONH<sub>2</sub>, -CONHR<sup>3</sup>,

  -CONR<sup>3</sup>R<sup>4</sup>, -CN, -COOR<sup>3</sup>, -OCH<sub>2</sub>CO<sub>2</sub>H, -COOH and -R<sup>3</sup>, in which the group(s) R<sup>2</sup>,

  which are identical or different, represent a saturated or unsaturated aliphatic group, R<sup>3</sup> and

  R<sup>4</sup>, which are identical or different, represent a saturated or unsaturated, aliphatic or

  aromatic hydrocarbon group optionally substituted with halogen atoms which may contain

  one or more heteroatoms chosen from O, S and N, and/or
- at least one of the groups R<sup>1</sup> represents a group -OCONH(CR<sup>5</sup>R<sup>6</sup>)<sub>m</sub>NHCOOR<sup>7</sup>, the other groups R<sup>1</sup> corresponding to the same definition as that given above, R<sup>5</sup> and R<sup>6</sup>, which are identical or different, represent H or a saturated or unsaturated aliphatic group, and R<sup>7</sup> represents a glucosidic or maltosidic unit of the peranhydrocyclodextrin and m is an integer ranging from 1 to 20;
- n is equal to 6, 7 or 8,

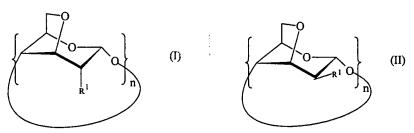
#### and/or

2) a polymer obtained by reacting at least two per(3,6-anhydro)cyclodextrins of formula (III) or (IV), as defined in claim 6, and a diisocyanate of formula OCN- (CR<sup>5</sup>R<sup>6</sup>)<sub>m</sub>-NCO, for

which R<sup>5</sup> and R<sup>6</sup>, which are identical or different, represent H or a saturated or unsaturated aliphatic group and m is an integer ranging from 1 to 20, the OH groups having not reacted during the reaction to be optionally converted into groups, which are identical or different, representing groups chosen from: -OCONHR<sup>2</sup>, -OR<sup>3</sup>, -SH, -SR<sup>3</sup>, -OCOR<sup>3</sup>, -NH<sub>2</sub>, -NHR<sup>3</sup>, -NR<sup>3</sup>R<sup>4</sup>, -CONH<sub>2</sub>, -CONHR<sup>3</sup>, -CONR<sup>3</sup>R<sup>4</sup>, -CN, -COOR<sup>3</sup>, -OCH<sub>2</sub>CO<sub>2</sub>H, -COOH and -R<sup>3</sup>, in which the group(s) R<sup>2</sup>, which are identical or different, represent a saturated or unsaturated aliphatic group, R<sup>3</sup> and R<sup>4</sup>, which may be identical or different, represent a saturated or unsaturated, aliphatic or aromatic hydrocarbon group which may contain one or more heteroatoms chosen from O, S and N, and n is equal to 6, 7 or 8, in order to bind the said ions in the form of a complex with the per(3,6-anhydro)cyclodextrin derivative or the polymer; and

- separating the said ions thus complexed from the said medium.
- Claim 9 (**Original**) Method according to Claim 8, in which the said ions are anions based on chromium or manganese.
- Claim 10 (Currently Amended) Method according to Claims 8 or Claim 9, in which the per(3,6-anhydro)cyclodextrin derivative corresponds to formula (I) in which all the groups R<sup>1</sup> represent the group –OCONHR<sup>2</sup> with R<sup>2</sup> having the same meaning as in Claim 1, and n is equal to 6.
- Claim 11 (**Original**) Method according to Claim 10, in which R<sup>2</sup> represents an ethyl or hexyl radical.
- Claim 12 (Currently Amended) Method according to Claims Claim 8 or 9, in which the polymer is as defined in Claim 7.

- Claim 13 (Currently Amended) Method according to any one of Claims Claim 8 to 12, in which, since the said medium is an aqueous solution, the per(3,6-anhydro)cyclodextrin derivative or the polymer is dissolved in an organic solvent which is immiscible with the said aqueous solution.
- Claim 14 (**Original**) Pharmaceutical composition for the decontamination, in relation to ions based on chromium or manganese, of a human being, comprising:
- (1) a per(3,6-anhydro)cyclodextrin derivative corresponding to one of the following formulae (I) or (II):



#### in which:

- at least one of the groups R<sup>1</sup> represents a group -OCONHR<sup>2</sup> and the other groups R<sup>1</sup>, which may be identical or different, represent a group corresponding to one of the formulae: -OCONHR<sup>2</sup>, -OH, -OR<sup>3</sup>, -SH, -SR<sup>3</sup>, -OCOR<sup>3</sup>, -NH<sub>2</sub>, -NHR<sup>3</sup>, -NR<sup>3</sup>R<sup>4</sup>, -CONH<sub>2</sub>, -CONHR<sup>3</sup>, -CONR<sup>3</sup>R<sup>4</sup>, -CN, -COOR<sup>3</sup>, -OCH<sub>2</sub>CO<sub>2</sub>H, -COOH and -R<sup>3</sup>, in which the group(s) R<sup>2</sup>, which are identical or different, represent a saturated or unsaturated aliphatic group, R<sup>3</sup> and R<sup>4</sup>, which are identical or different, represent a saturated or unsaturated, aliphatic or aromatic hydrocarbon group optionally substituted with halogen atoms which may contain one or more heteroatoms chosen from O, S and N, and/or
- at least one of the groups R<sup>1</sup> represents a group -OCONH(CR<sup>5</sup>R<sup>6</sup>)<sub>m</sub>NHCOOR<sup>7</sup>, the other groups R<sup>1</sup> corresponding to the same definition as that given above, R<sup>5</sup> and R<sup>6</sup>, which are identical or different, represent H or a saturated or unsaturated aliphatic group, and R<sup>7</sup>

represents a glucosidic or maltosidic unit of the peranhydrocyclodextrin and m is an integer ranging from 1 to 20;

- n is equal to 6, 7 or 8, and/or
- (2) a polymer as defined in Claims 6 and 7.
- Claim 15 (**Original**) Pharmaceutical composition according to Claim 14, in which all the groups R<sup>1</sup> represent the group -O-CO-NHR<sup>2</sup> and n is equal to 6, R<sup>2</sup> having the same meaning as in Claim 1.

Claim 16 (Original) Complex of an ion chosen from  $CrO_4^{2-}$ ,  $Cr_2O_7^{2-}$  and  $MnO_4^{2-}$  with:

(1) a per(3,6-anhydro)cyclodextrin derivative corresponding to one of the following formulae:

in which:

at least one of the groups R<sup>1</sup> represents a group -OCONHR<sup>2</sup> and the other groups R<sup>1</sup>, which may be identical or different, repair a group corresponding to one of the formulae: -OCONHR<sup>2</sup>, -OH, -OR<sup>3</sup>, -SH, -SR<sup>3</sup>, -OCOR<sup>3</sup>, -NH<sub>2</sub>, -NHR<sup>3</sup>, -NR<sup>3</sup>R<sup>4</sup>, -CONH<sub>2</sub>, -CONHR<sup>3</sup>, -CONR<sup>3</sup>R<sup>4</sup>, -CN, -COOR<sup>3</sup>, -OCH<sub>2</sub>CO<sub>2</sub>H, -COOH and -R<sup>3</sup>, in which the group(s) R<sup>2</sup>, which are identical or different, represent a saturated or unsaturated aliphatic group, R<sup>3</sup> and R<sup>4</sup>, which are identical or different, represent a saturated or unsaturated,

- aliphatic or aromatic hydrocarbon group optionally substituted with halogen atoms which may contain one or more heteroatoms chosen from O, S and N, and/or
- at least one of the groups R<sup>1</sup> represents a group -OCONH(CR<sup>5</sup>R<sup>6</sup>)<sub>m</sub>NHCOOR<sup>7</sup>, the other groups R<sup>1</sup> corresponding to the same definition as that given above, R<sup>5</sup> and R<sup>6</sup>, which are identical or different, represent H or a saturated or unsaturated aliphatic group, and R<sup>7</sup> represents a glucosidic or maltosidic unit of peranhydrocyclodextrin and m is an integer ranging from 1 to 20;
- n is equal to 6, 7 or 8, and/or
- (2) a polymer as defined in Claims 6 and 7.
- Claim 17 (**Original**) Complex according to Claim 16, in which the per(3,6-anhydro)cyclodextrin derivative corresponds to formula (I) in which all the groups R<sup>1</sup> represent the group –O-CO-NHR<sup>2</sup> and n is equal to 6, R<sup>2</sup> having the same meaning as in Claim 1.